

EPA Superfund Explanation of Significant Differences:

**DAVIS PARK ROAD TCE
EPA ID: NCD986175644
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GASTONIA, NC
09/27/2000**

**EXPLANATION OF SIGNIFICANT DIFFERENCE
DAVIS PARK ROAD TCE SITE
GASTON COUNTY, NORTH CAROLINA
NCD986175644**

1.0 INTRODUCTION

Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9617(c), as amended (CERCLA), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency plan (NCP), 40 C.F.R. Part 300.435(c)(2)(i), require that the Environmental Protection Agency (EPA) publish an Explanation of Significant Difference (ESD) when significant changes in a Superfund remedy occur after the Record of Decision (ROD) is signed. The purpose of this ESD is to notify all parties of concern that the EPA, as the lead agency, with the support of North Carolina Department of Environment and Natural Resources (NC DENR), is announcing a significant change to the remedy for the Davis Park Road TCE Site (Site), located in Gaston County, North Carolina. The ROD for this Site was signed on September 29, 1998. This change is being made based on information collected during the Remedial Design and the Remedial Action (RD/RA). **The information collected indicates that natural attenuation will achieve groundwater clean-up goals for this Site, and that implementation of an active groundwater clean-up remedy is not needed. The information collected also indicates that it may take longer than previously estimated for groundwater to reach remedial clean-up goals.**

As required by Sections 300.435(c)(2)(i)(A) and 300.825(a)(2) of the NCP, a copy of this ESD will be added to the Site Administrative Record and Information Repository. The Administrative Record and Information Repository can be found in the Gaston County Public Library in Gastonia, North Carolina, and in the US EPA Region 4 Record Center in Atlanta, Georgia. Both addresses are provided in Section 7.0 of this document. The public is encouraged to review the Administrative Record and the Information Repository at either of these locations.

2.0 SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

The Davis Park Road TCE Site includes approximately 20 acres of residential homes and private businesses in unincorporated Gaston County, southwest of the City of Gastonia. The Site consists of a contaminated soil area that was reportedly behind an automobile transmission shop located at 2307 Davis Park Road, and a plume of contaminated groundwater that emanates from this property and extends south along Davis Park Road to Blackwood Creek. The plume of contaminated groundwater underlies residences at the Site along the plume's entire horizontal extent. A majority of homes within the Site area obtain their water from private or community wells. Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1-Dichloroethene (1,1,-DCE), Chloroform, and Methyl-ter-butyl ether (MTBE) are the groundwater contaminants of concern identified in the ROD.

The ROD also included natural attenuation of groundwater contaminants as an integral part of the remedy for the Site, and contains an estimate of seven years to achieve remedial goals through natural attenuation. The ROD specified that groundwater sampling, including parameters necessary to complete a natural attenuation study, would be conducted as part of the RD phase of this project, and that a natural attenuation review would be conducted and a report prepared. The ROD contained a contingency remedy, to add pumping and active treatment of the contaminated groundwater to the selected remedy, if data collected during the natural attenuation study did not substantiate the occurrence of natural attenuation.

The RI/FS concluded that soil contamination at the probable source area for the groundwater plume was no longer at levels warranting further action. It was also concluded that migration of the groundwater plume toward Blackwood Creek would not result in a measurable release of Site-related contaminants to the creek.

3.0 BASIS FOR THIS DOCUMENT AND DESCRIPTION OF SIGNIFICANT DIFFERENCES

A sampling effort for the natural attenuation study was conducted in November 1999. A thorough review of the data, review of all historical data, and predictive analyses were conducted and summarized in an EPA Region 4 Memorandum Report dated September 25, 2000. The report focuses on TCE and PCE as the critical contaminants of concern.

TCE concentrations are projected to diminish to less than the 5 ug/l Safe Drinking Water Act Maximum Contaminant Level (MCL) in 12 years for the worst (slowest) estimate. Data from most wells suggest that TCE concentrations in most wells will be less than the MCL in about 5 years. Remedial goals for this Site are based on North Carolina's groundwater standard for TCE, which at 2.8 ug/l is lower than the MCL. A worst case estimate is that it will take 26 years to achieve concentrations below that level in all parts of the plume. However since the average groundwater travel time to Blackwood Creek is estimated at 13 years, this estimate is probably overly conservative.

PCE concentrations are expected to diminish to less than the MCL (5 ug/l) in 15 years assuming extreme worst case conditions. The remedial goal for PCE for this Site, 1.0 ug/l, is based on North Carolina's groundwater standard and the minimum detection level. A worst case estimate is that it will take 43 years to achieve concentrations below that level in all parts of the plume. Since the estimated contaminant migration rate from the area of highest PCE contamination to Blackwood Creek is approximately 7 to 10 years, this indicates that our worst case estimates for PCE may also be overly conservative.

The estimated time frames for natural attenuation are longer than projected in the Record of Decision. However the conclusion that natural attenuation will achieve remedial goals, and that contaminant levels in groundwater will reach Safe Drinking Water Act Maximum Contaminant levels in an even shorter time frame, remains consistent with the ROD and eliminates the need for the contingency remedy. Cost estimates are not changed based on this significant difference. The estimated costs in the 1998 ROD are based on 30 years of groundwater monitoring.

EPA currently plans to monitor groundwater from identified private wells and monitoring wells quarterly for the next two to three years, for wells with limited historical data, and annually for all wells, until remedial goals are demonstrated to be achieved. Monitoring frequency will be reevaluated as needed. Sample collection and data review will follow EPA's guidelines for monitored natural attenuation.

4.0 SUPPORT AGENCY COMMENTS

The NC DENR Superfund Section was given the opportunity to review this ESD. They concur with this modification to the remedy.

5.0 STATUTORY DETERMINATIONS

The modified remedy satisfies CERCLA Section 121. EPA and NC DENR believe that the changes made to the remedy have not decreased the protectiveness for human health and the environment, comply with Federal and State requirements that are applicable or relevant and appropriate to the Remedial Action, and are cost-effective. In addition, the revised remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for this Site.

6.0 PUBLIC PARTICIPATION COMPLIANCE

As required by sections 300.435(c)(2)(i)(A) and 300.825(a)(2) of the NCP, this ESD will be added to the Administrative Record for the Davis Park Road TCE Superfund Site. Copies of the Administrative Record are kept at the two locations listed below:

Gaston County Public Library
1555 E. Garrison Boulevard
Gastonia, North Carolina 28054
(704) 868-2167
Hours: Mon. - Thurs. 9 am - 9 pm
Fri./Sat. 9 am - 6 pm

US EPA Region 4 Record Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
(404) 562-8946
Hours: Mon. - Fri. 8 am - 4:30 pm

As required by Section 300.435(c)(2)(i)(B) of the NCP, a notice of availability and a brief description of the ESD will be placed in the Gaston Gazette newspaper.



Richard D. Green, Director
Waste Management Division

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Date